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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,478	01/06/2004	Minoru Matsuzawa	031362	3528
23850	7590	03/07/2006	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			ABDELWAHED, ALI F	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/751,478

Applicant(s)

MATSUZAWA ET AL.

Examiner

Ali Abdelwahed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/7/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

It is suggested that in:

Claim 1, line 2, delete "check" and insert --chuck--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,717,482 to Akutsu et al.

Akutsu et al. discloses a substrate supporting apparatus (1) comprising a rotatable chuck (2) which is provided at its central portion with a hollow (see figs.1-3) and which supports a substrate (3), and a cylindrical nozzle member (10) having a nozzle hole (11) and capable of vertically moving in the hollow (see figs.1, 2). The nozzle hole is formed in a central portion of the nozzle member (see figs.1-3), and means (13, 14) for upwardly moving the nozzle member (see figs.1, 2, 5).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akutsu et al. in view of U.S. Patent No. 5,896,877 to Pirker.

Akutsu et al. discloses the claimed invention except for a plurality of pawls provided on a surface of the chuck opposed to the substrate, each of the pawls being projected substantially in a perpendicular direction with respect to the surface, each of the pawls can move into a state in which the pawls abut against an outer periphery of the substrate and support the substrate, and into a state in which the pawls are separated from the outer periphery of the substrate. However, Pirker teaches a substrate supporting apparatus (1) comprising a plurality of pawls (7) provided on a surface of the chuck opposed to the substrate (see fig.1), each of the pawls being projected substantially in a perpendicular direction with respect to the surface (see fig.1), each of the pawls can move into a state in which the pawls abut against an outer periphery of the substrate and support the substrate (see fig.1), and into a state in which the pawls are separated from the outer periphery of the substrate (see column 2, lines 3-5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Akutsu et al., in view of Pirker, such that it would provide the apparatus of Akutsu et al. with the concept of the

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aforementioned limitations for the purpose of enhancing the support of the substrate on the chuck.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akutsu et al. in view of U.S. Patent No. 6,095,582 to Siniaguine et al.

Akutsu et al. discloses the claimed invention except for the substrate is held over an upper surface of the chuck in a non-contact state by discharging gas from the nozzle hole. However, Siniaguine et al. teaches a substrate supporting apparatus (110) comprising a substrate (120) being held over an upper surface of the chuck (130) in a non-contact state by discharging gas from the nozzle hole 200 (see fig. 2, and column 1, lines 26-30 and 61-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Akutsu et al., in view of Siniaguine et al., such that it would provide the apparatus of Akutsu et al. with the concept of the aforementioned limitation for the purpose of providing a more efficient support of the substrate on the chuck.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akutsu et al. in view of Siniaguine et al. as applied to claim 4 above, and further in view of U.S. Patent Application Publication No. 2001/0052392 A1 to Nakamura et al.

Akutsu et al., as modified, discloses the claimed invention except for having a fork with a pair of finger portions for holding the substrate. However, Nakamura et al. teaches a substrate supporting apparatus comprising a fork (44) with a pair of finger

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portions for holding the substrate (see fig.13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the apparatus of Akutsu et al., as per the teachings of Nakamura et al., such that it would provide the apparatus of Akutsu et al. with the concept of the aforementioned limitation for the purpose of providing a more efficient device for holding the substrate.

### ***Conclusion***

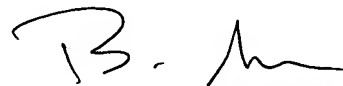
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abdelwahed whose telephone number is (571) 272-4417. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner or the examiner's supervisor.

AA

AA  
02/27/2006



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER